



# **Progress Report: Transportation System Performance Measures in California**

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# Summary

- ❖ **Caltrans initiative to develop outcome based transportation systems performance measurement**
- ❖ **Completed design of concept**
- ❖ **Initiated testing of selected outcomes**
- ❖ **We are now developing an implementation framework**

# Goals For the Project

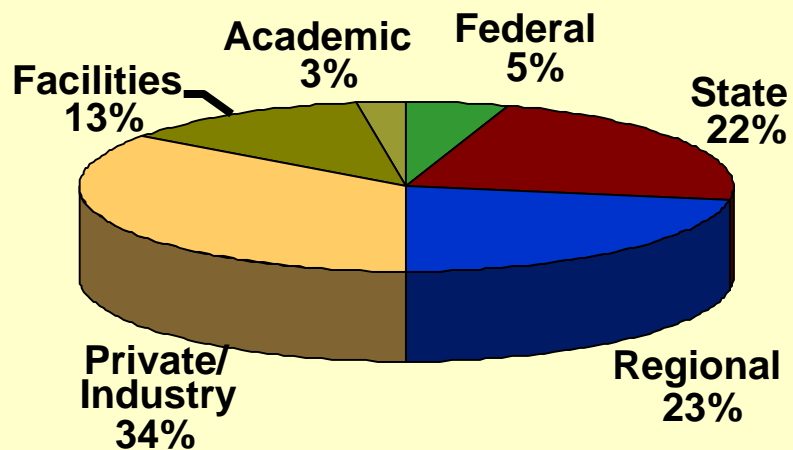
- ❖ **“To develop indicators/measures to assess the performance of California’s multi-modal transportation system to support informed transportation decisions by transportation officials, operators, service providers, and system users.”**
- ❖ **“To establish a coordinated and cooperative process for consistent performance measurement in California.”**

# Background

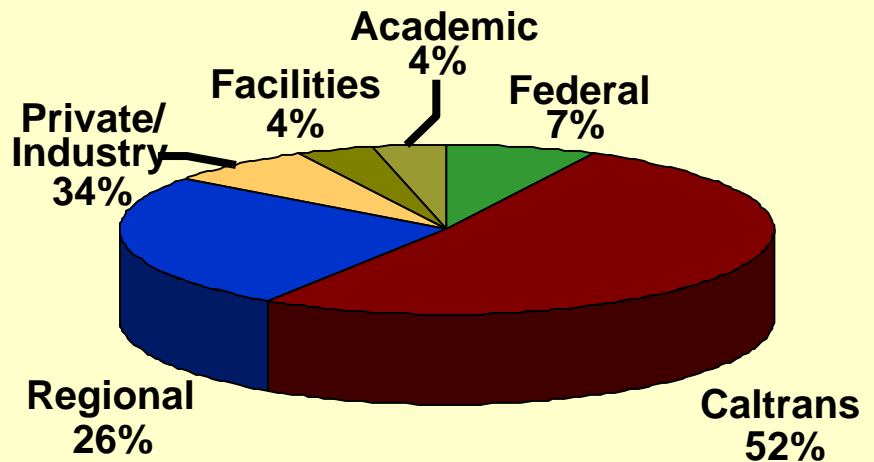
- ❖ CTP included two elements: Goods Movement and Performance Measurement
- ❖ The CTP update initiated the development of a systematic performance measurement framework
- ❖ The framework was developed in consultation with representative stakeholders from around the State

# Stakeholder Involvement

**Policy Advisory  
Committee  
(PAC)**  
41 Members



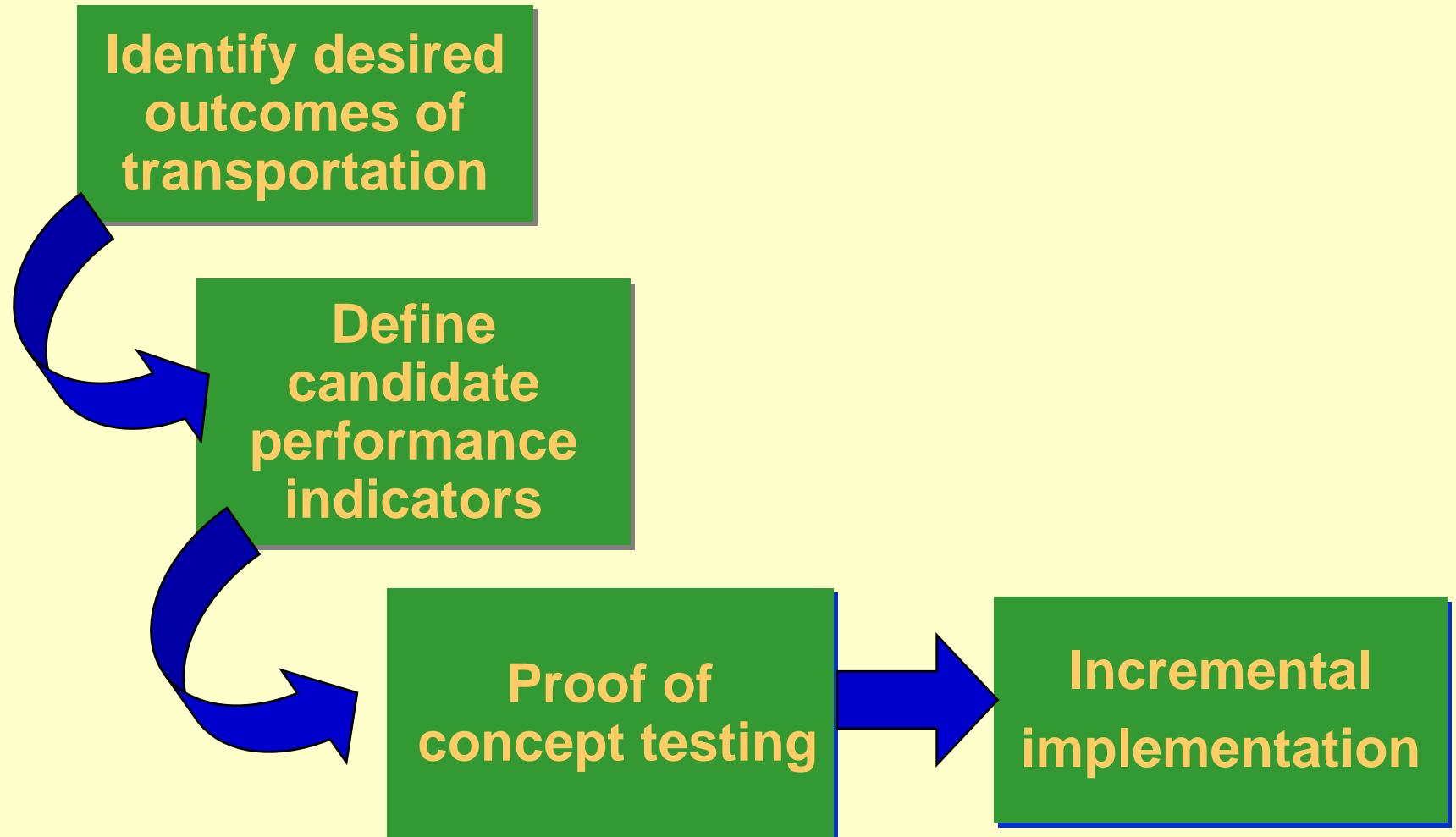
**Technical Advisory Steering  
Committee  
(TASC)**  
27 Members



# How We Will Use Performance Measurement

- ❖ **Monitor existing performance and forecast future performance**
- ❖ **Inform system users and customers**
- ❖ **Establish public accountability**
- ❖ **Provide information about the system to provide a basis for decisions**

# Overall Approach



# Design Phase (Completed)

- ❖ **Completed in 1998**
- ❖ **Focused on transportation “outcomes”**
- ❖ **Leveraged existing efforts within the State (e.g., SCAG, MTC) and around the country**
- ❖ **Developed candidate indicators that are customer driven and applicable to all modes**



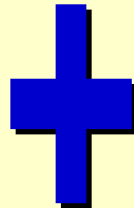
# Outcomes Selected

- ❖ **Mobility & Accessibility**
- ❖ **Reliability**
- ❖ **Safety and Security**
- ❖ **Cost Effectiveness**
- ❖ **Economic Well-Being**
- ❖ **Sustainability**
- ❖ **Environmental Quality**
- ❖ **Equity**
- ❖ **Customer Satisfaction**

# Analysis of Outputs and Indicators Leads to Outcomes Information

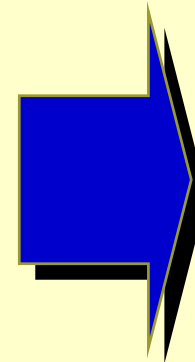
## Transportation Outputs

- ❖ Number of lanes
- ❖ Lane capacity
- ❖ On-time transit performance
- ❖ Fares
- ❖ Mode shift
- ❖ Vehicle miles traveled
- ❖ Average speeds
- ❖ Speed variations
- ❖ Average vehicle occupancy
- ❖ Incidents
- ❖ Accidents



## Performance Indicators

- ❖ Delay (lost time)
- ❖ Travel time
- ❖ Variation in travel time
- ❖ Benefit cost ratio
- ❖ Accident rates
- ❖ Household transportation costs
- ❖ Passenger survey-based customer satisfaction index



## System Performance Outcomes

- ❖ Mobility and accessibility
- ❖ Reliability
- ❖ Cost effectiveness
- ❖ Economic well-being
- ❖ Sustainability
- ❖ Environmental quality
- ❖ Safety and security
- ❖ Equity
- ❖ Customer satisfaction

# Testing Phase (Underway)

- ❖ **Design and test the most promising indicators, such as:**
  - **Mobility: travel time, delay**
  - **Reliability: variance in travel time**
  - **Safety: accident rates**
- ❖ **Continue testing of remaining indicators**
- ❖ **Continue coordination with regional and local agencies**
- ❖ **Refine design for incremental implementation**